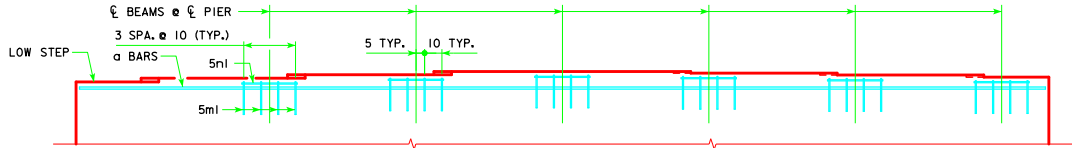


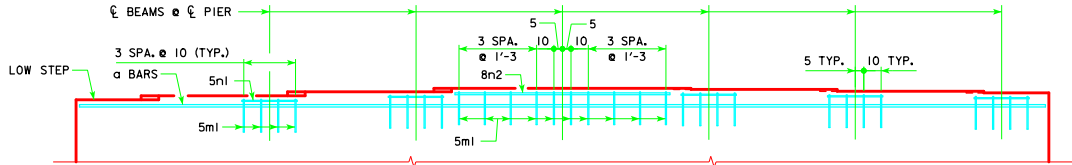
PART ELEVATION VIEW OF PIER CAP

GRADE (G) $G \leq 1.3\%$



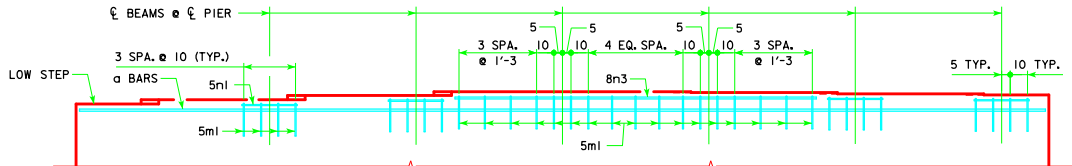
PART ELEVATION VIEW OF PIER CAP

GRADE (G) $1.3\% < G \leq 2.1\%$



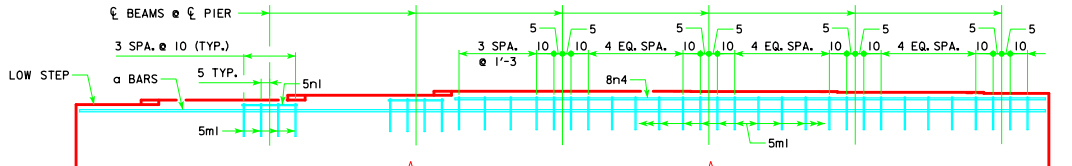
PART ELEVATION VIEW OF PIER CAP

GRADE (G) $2.1\% < G \leq 3.0\%$



PART ELEVATION VIEW OF PIER CAP

GRADE (G) $3.0\% < G \leq 4.0\%$



PART ELEVATION VIEW OF PIER CAP

GRADE (G) $4.0\% < G \leq 5.0\%$

**STEP REINFORCING BAR LIST
ONE TEE PIER**

BAR	LENGTH	SHAPE	G ≤ 1.3%			1.3% < G ≤ 2.1%			2.1% < G ≤ 3.0%			3.0% < G ≤ 4.0%			4.0% < G ≤ 5.0%		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
5m1	6'-4"		20	5	132	24	5	159	30	5	198	33	5	218	36	5	238
5n1	2'-8"		20	5	56	24	5	67	20	5	56	16	5	45	8	5	22
8n2	11'-2"		--	--	--	--	--	--	4	8	119	--	--	--	--	--	--
8n3	18'-3"		--	--	--	--	--	--	--	--	--	4	8	195	--	--	--
*8n4	VARIES		--	--	--	--	--	--	--	--	--	--	--	--	4	8	309
TOTAL (LB.)			188			226			373			458			569		

G = GRADE (%)

*8n4 BARS VARY FROM 28'-7 TO 29'-3

**STEP REINFORCING BAR LIST
ONE PILE BENT PIER**

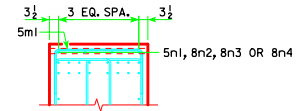
BAR	LENGTH	SHAPE	G ≤ 1.3%			1.3% < G ≤ 2.1%			2.1% < G ≤ 3.0%			3.0% < G ≤ 4.0%			4.0% < G ≤ 5.0%		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
5m1	6'-3"		20	5	130	24	5	156	30	5	196	33	5	215	36	5	235
5n1	2'-8"		20	5	56	24	5	67	20	5	56	16	5	45	8	5	22
8n2	11'-2"		--	--	--	--	--	--	4	8	119	--	--	--	--	--	--
8n3	18'-3"		--	--	--	--	--	--	--	--	--	4	8	195	--	--	--
*8n4	VARIES		--	--	--	--	--	--	--	--	--	--	--	--	4	8	309
TOTAL (LB.)			186			223			371			455			566		

G = GRADE (%)

*8n4 BARS VARY FROM 28'-7 TO 29'-3

NOTE: THE REINFORCING STEEL QUANTITIES ARE TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

NOTE: THE CONCRETE QUANTITIES ARE TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

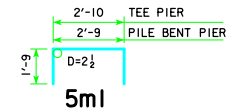


TYPICAL SECTION

NOTES:

THE TABLE BELOW LISTS THE ADDITIONAL CONCRETE VOLUME REQUIRED IN EACH ABUTMENT FOOTING/PIER CAP BASED ON THE ROADWAY GRADE AT EACH ABUTMENT FOOTING/PIER CAP. ADDITIONAL CONCRETE SHOULD BE ADDED TO THE PLANS FOR EACH ABUTMENT FOOTING/PIER CAP THAT HAS 0.5 CU. YDS. OR MORE OF ADDITIONAL CONCRETE. VALUES SHOULD BE EXCLUDED FOR SCENARIOS THAT HAVE LESS THAN 0.5 CU. YDS. OF ADDITIONAL CONCRETE PER SUBSTRUCTURE UNIT. VALUES MAY BE INTERPOLATED FOR GRADES BETWEEN THE VALUES SHOWN IN THE TABLE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

ADDITIONAL CONCRETE VOLUME PER SUBSTRUCTURE UNIT (C.Y.)

	ROADWAY GRADE AT SUBSTRUCTURE UNIT				
	1%	2%	3%	4%	5%
EACH ABUTMENT FOOTING					
A, B BEAMS	--	0.5	0.8	1.1	1.4
C BEAMS	--	0.6	1.0	1.3	1.7
EACH TEE PIER CAP - ALL BEAMS	--	0.5	0.8	1.1	1.4
EACH PILE BENT PIER - ALL BEAMS	--	0.5	0.8	1.1	1.4

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWADOT Highway Division

STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE
**PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGES**
SEPTEMBER, 2014

ADDITIONAL QUANTITIES
15° SKEW

H44-17-14